IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: **CAIN ET AL.**	
Serial No. **10/658,021**	Examiner Ahmed ELALLAM
Confirmation No: **2804**	Art Unit: 2616
Filing Date: **SEPTEMBER 9, 2003**	Attorney Docket: GCSD-1469 (51335)
For: **MOBILE AD HOC NETWORK (MANET) PROVIDING QUALITY-OF-SERVICE (QoS) BASED UNICASE AND MULTI-CAST FEATURES**	

PRE-APPEAL BRIEF REQUEST FOR REVIEW

MS AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Responsive to the final Office Action of November 16, 2007, and in connection with the Notice of Appeal filed concurrently herewith, please consider the remarks set out below.

REMARKS

Applicants thank the Examiner for the thorough examination of the present application. As an initial matter, the Examiner objected to the phrase, "the at least one selected route" in independent Claim 1 as lacking antecedent basis. Applicant respectfully submits that the recited at least one selected route is inherent in the communication to the at least one destination mobile node, as recited in independent Claim 1. Accordingly, the objection to independent Claim 1 should be withdrawn.

The present application includes independent Claims 1, 14, and 24. The Examiner rejected Claims 1 and 24 based upon Tasman et al. in view of Fong et al., and Claim 14 in further view of Sholander et al. As applicable to independent Claims 1, 14 and 24, the Examiner correctly recognized that Tazman et al. does not disclose the wireless communications device modulating the data using a first modulation technique if the QoS metric is greater than or equal to the QoS threshold, and otherwise using a second modulation technique. The Examiner cited Fong et al. in an attempt to supply these critical deficiencies.

Applicants respectfully submit the Examiner's proposed combination of Tasman et al. et al. and Fong et al. is improper. Applicants point out that Fong et al., whose primary objective is a method of mapping information in a fixed infrastructure wireless communications system, teaches mapping information using shared and dedicated channels having fixed and adaptive modulation respectively. The QoS layer in Fong et al., which supports transfer scheduling, rate control, and modulation, is "conveniently implemented as a distributed layer in each base station." (Paragraph 0039).

Conversely, Tasman et al. discloses a wireless packet router that maintains multiple forwarding tables and radio parameters necessary to support quality of service guarantees in a mobile wireless ad hoc network. Tasman et al. itself makes is clear that "[w]ireless ad-hoc networks preferably do not rely on base stations and other fixed infrastructure," such as a base

station. (Emphasis added. Paragraph 0004). One of ordinary skill in the art would not turn to the fixed infrastructure of Fong et al. to combine with the mobile wireless ad hoc network devices of Tasman et al. to arrive at the invention as recited in Claims 1, 14, and 24, for example. Accordingly, independent Claims 1, 14 and 24 are patentable for this reason alone, that is, because the selective combination of Tasman et al. and Fong et al. is improper.

The Examiner further cited Sholander et al. in combination with Tasman et al. and Fong et al. in rejecting independent Claim 14. Sholander et al. discloses a proactive and reactive hybrid routing protocol for a wireless ad hoc network, and further states that mobile ad hoc networks "may be deployed rapidly with little or no assistance and do not have a central network structure such as cellular-base stations or overhead satellite assets." (Col. 1, lines 57-62). Sholander et al. fails to make up for the improper combination of Tasman et al. and Fong et al. Indeed, Sholander et al. is also directed to a mobile ad hoc network that is incompatible with the fixed infrastructure network of Fong et al. Accordingly, independent Claim 14 is also patentable for this reason.

Applicants submit that a person having ordinary skill in the art would be taught away from combining the mobile ad-hoc network architecture of Tasman et al. (and/or Sholander et al.) with the fixed infra structure architecture of Fong et al. As disclosed on Sholander et al., wireless mobile ad hoc networks

may be rapidly deployed with little or no assistance and do not have a central network structure. (See Sholander et al. Col. 1, lines 59-62). Still further, as disclosed in Tasman et al., this makes wireless mobile ad hoc networks extremely important in military, emergency, and temporary environments. (See Tasman et al. paragraph 0004). Thus, a person having ordinary skill in the art would not implement fixed infrastructure, as disclosed in Fong et al. with mobile ad hoc architecture of Tasman et al. and/or Scholander et al. Additionally, Applicants respectfully submit that the Examiner is using impermissible hindsight reconstruction based on Applicants' specification in an attempt to produce claimed invention by selectively assembling disjoint pieces of the prior art.

Accordingly, it is submitted that independent Claims 1, 14, and 24 are patentable over the prior art. Their respective dependent claims, which recite still further distinguishing features, are also patentable and require no further discussion herein.

Respectfully submitted,

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